

DAFTAR PUSTAKA

- Adiwijono & A. Asdie. 1993. Dislipidemia pada Diabetes Mellitus Tipe II, Patologi dan Pendekatan Terapi. Berkala Ilmu Kedokteran. 25 : 190-201.
- Akbarzadeh, A., D. Norouzian., M. R. Mehrabi., S. H. Jamshidi., A. Farhangi., A. A. Verdi., S.M.A. Mofidian & B. L. Rad. 2007. Induction of Diabetes by Streptozotocin in Rats. Indian Journal of Clinical Biochemistry. 22 : 60-64.
- American Diet Association. 2006. Standards of Medical Care in Diabetes. Diabetes Care. 29 : 4-42.
- Anggadimeja, J. T., R. Andayani., Hayati, & Muawanah. 1997. Antioxidants Activity of *Sargassum polycystum* (Phaeophyta) and *Laurencia obusa* (Rhodophyta) from Seribu Islands. Journal of Applied Phycology. 9: 477-499.
- Anggadimeja, J. T., A. Zatnika, H. Purnomo, & S. Istini. 2006. Rumput Laut : Pembudidayaan, Pengolahan, dan Pemasaran Komoditas Perikanan Potensial. Seri Agribisnis. Penebar Swadaya. Jakarta.
- Asdie, A. 1987. Hiperglikemia dan Komplikasi Akut Diabetes Mellitus. Berkala Ilmu Kedokteran. 19: 95-102.
- Asdie, A. 1988. Diagnosis dan Klasifikasi Diabetes Mellitus. Berkala Ilmu Kedokteran. 20: 51-60.
- Asdie, A. 1989. Diabetes Mellitus dan Sulfonilurea. Berkala Ilmu Kedokteran.
- Aslan, L. M. 1998. Rumput Laut. Kanisius. Yogyakarta.
- Athukorala, Y., K. N. Kim., & Y. J. Jeon. 2006. Antiproliferative and Antioxidant Properties of an Enzymatic Hydrolysate from Brown Algae, *Ecklonia cava*. Food and Chemical Toxicology. 44: 1065-1067.
- Atmadja, W.S., A. Kadi, Sulistidjo & Rachmaniar. 1996. Pengenalan Jenis-jenis Rumput Laut. Puslitbang Oseanologi LIPI. Jakarta.
- Balboa., E. M., E. Conde., A. Moure., E. Falque., & H. Dominguez. 2013. In Vitro Antioxidant Properties Of Crude Extracts And Compounds From Brown Algae. Food Chemistry. 138 : 1764-1785.
- Banks, W. J. 1993. Applied Veterinary Histology. 3rd edition. USA : Mosby. pp 6.
- Bhadury, P. & P. C. Wright. 2004. Exploitation of Marine Algae : Biogenic Compounds for Potential Antifouling Applications. Journal Planta. 219: 561-578.
- Bruneton, J. 1999. Pharmacology Phytochemistry Medical Plants. 2nd edition. Lavoisier Publishing. France. p. 567-568.

- Broonchum, W., Y. Peerapormpisal., D. Kanjanophothi., J. Pekkoh., C. Pumas., & U. Jamjai. 2011. Antioxidant Activity of Some Seaweed from the Gulf of Thailand. *International Journal of Agriculture and Biology*. 13: 95-99.
- Brunzell, J. D., A. Chait & E. L. Beirman. 1985. Plasma Lipoprotein in Human Diabetes Mellitus. *In* : Alberti, K. G. M. M & Krall L. P. (Eds) *The Diabetes Annual 1*. Elsevier Science Publisher B. V. Amsterdam. 463-479.
- Cody, J.A. & R. K. Boeckman. 2012. Terpene Derived Auxiliaries: Camphor and Pinene Derived Auxiliaries. *Synthetic Methods II -Chiral Auxiliaries*. 3:42-105.
- DiaSys Diagnostic Systems. 2009. Glucose GOD FS. DiaSys Diagnostic Systems GmbH. Germany.
- DiaSys Diagnostic Systems. 2012a. Triglycerides FS. DiaSys Diagnostic Systems GmbH. Germany.
- DiaSys Diagnostic Systems. 2012b. Cholesterol FS. DiaSys Diagnostic Systems GmbH. Germany.
- DiaSys Diagnostic Systems. 2012c. HDL Precipitant. DiaSys Diagnostic Systems GmbH. Germany.
- DiaSys Diagnostic Systems. 2012d. LDL Precipitant. DiaSys Diagnostic Systems GmbH. Germany.
- Ditjen POM. 2000. Parameter Standar Umum Ekstrak Tumbuhan Obat. Cetakan pertama. Agromedia Pustaka. Jakarta. 3-5. 10-11.
- Elsner, M., B. Guldbakke., M. Tiedge., R. Munday., & S. Lenzen. 2000. Relative Importance of Transport and Alkylation for Pancreatic Beta-cell Toxicity of STZ. *Diabetologia*. 43: 1528-1533.
- Firdaus, M., M. Astawan., D. Muchtadi., T. Wresdiyati., S. Waspadji., & S. K. Setyawati. 2010. Pengaruh Ekstrak Rumpun Laut Cokelat Terhadap Fungsi Sel Endotelium Aorta Tikus Diabetes Mellitus. *Majalah Farmasi Indonesia*. 21: 151-157.
- Folin, O. & V. Ciocalteu. 1944. On Tyrosine and Tryptophan Determinations in Proteins. *Journal Biochemistry Chemistry*. 73: 627-650.
- Fuchs, B., R. Sub., K. Teuber., M. Eibisch., & J. Schiller. 2011. Lipid Analysis by Thin Layer Chromatography-A Review of the Current State. *Journal of Chromatography A*. 1218: 2754-2774.
- Gamal, E. 2010. Biological Importance of Marine Algae. *Saudi Pharmacy Journal*. 18: 1-25.

- Geloneze, B., R. N. Lamounier., & O.R. Coelho. 2006. Postprandial Hyperglycemia : Treating its Atherogenic Poential. *Arquivos Brasileiro de Cardiologia* 87 : 604-613.
- Ghedolf, N. & N. J. Engeseth. 2000. Antioxidant Capasity of Honeys from Various Floral Sources Based on Determination of Oxygen Radical Absorbance Capacity and Inhibition of In Vitro Lipoprotein in Human Serum Samples. *Journal of Agriculture and Food Chemistry*. 50: 3050-3055.
- Golstein, P & G. Kroemer. 2006. Cell Death by Necrosis: Towards a Molecular Definition. *Trends in Biochemical Sciences*. 32 : 37-43.
- Guyton A.C., & J. E. Hall. 1997. *Buku Ajar Fisiologi Kedokteran*. Edisi 9. Kedokteran EGC. Jakarta.
- Harbourne, J. B. 1987. *Phytochemical Methods : A Guide to Modern Techniques of Plants Analysis*. Third Edition. Chapman & Hall. London.
- Hayashi, K., R. Kojima, & M. Ito. 2006. Strain Differences in the Diabetogenic Activity of Streptozotocin in Mice. *Biology Pharmacology Bulletin*. 29: 1110–1119.
- Henrich, M., J. Barnes, S. Gibbons, & E.M. Williamson. 2010. *Farmakognosi dan Fitoterapi*. EGC. Jakarta.
- Heo, S. J., E. J. Park., K. W. Lee., & Y. J. Jeon. 2005. Antioxidant Activities of Enzymatic Extracts from Brown Seaweed. *Bioresources Technology*. 96 : 1613-1623.
- Holemans, K., R. V. Bree, J. Verhaeghe, K. Meurrens, & A.V. Assche. 1997. Maternal Semi Starvation and Streptozotocin-Diabetes in Rats Have Different Effects on the In Vivo Glucose Uptake by Peripheral Tissues in Their Female Adult Offspring. *The Journal of Nutrition*. 127 : 1371-1376.
- Honwad, V. & A. S. Rao. 1965. Terpenoids LXIX: Absolute Configuration of α -curcumene. *Tetrahedron*. 21: 2593–2604.
- International Diabetes Federation*. 2013. *Diabetes Atlas* 6th Edition : Chapter 2 The Global Burden : 29-49.
- Kang, C., Y. Bae Jin, H. Lee, M. Cha, E. Sohn, J. Moon, C. Park, S. Chun, E. Jung, J. Hong, S. B. Kim, J. Kim, & E. Kim. 2010. Brown Algae *Ecklonia cava* Attenuates Type 1 Diabetes by Activating AMPK and Akt Signaling Pathways. *Food and Chemical Toxicology*. 48 : 509-516.
- Kang, M. C., J. P Wijesinghe., S. H. Lee., S. M. Kang., S. C. Ko, X. Yang., N. Kang., B. T. Jeon., J. Kim., D. H. Lee., & Y. J. Jeon. 2013. Dieckol Isolated from Brown Seaweed *Ecklonia cava* Attenuates Type II Diabetes in db/db Mouse Model. *Food and Chemical Toxicology*. 53: 294-298.

- Kavishankar, G. B. & N. Lakshmidhevi. 2014. Anti-diabetic Effect of Novel N-Trisaccharide Isolated from *Cucumis prophetarum* on Streptozotocin-Nicotinamide Induced Type 2 Diabetic Rats. *Phytomedicine*. 21 : 624-630.
- Khadambi. 2007. Extraction of Phenolic Compounds and Qualification of the Total Phenol and Condensed Tannins and Condensed Tannins Free *Sorghum Varieties* (Thesis).
- Kim, M. J., & H. K. Kim,. 2012. Insulinotrophic and Hypolipidemic Effects of *Ecklonia cava* in Streptozotocin-Induced Diabetic Mice. *Asian Pacific Journal of Tropical Medicine*. 374-379.
- Kim, S. N., W. Lee., G. Bae., & Y. K. Ki. 2012. Anti-diabetic and Hypolipidemic Effects of *Sargassum yezoense* in db/db Mice. *Biochemical and Biophysical Research Communications*. 424 : 675-680.
- King, A. 2012. The Use of Animal Models in Diabetes Research. *British Journal of Pharmacology*. 166 : 877-894.
- KKI Phytomedica. 1993. Kelompok Kerja Ilmiah Phytomedica: Penapisan Farmakologi, Pengujian Fitokimia, dan Pengujian Klinik. Yayasan Pengembangan Obat Alam Phytomedica. Jakarta. 16-17.
- Kumar, E. K. D., & G. R. Janardhana. 2011. Antidiabetic Activity of Alcoholic Stem Extract of *Nervilia plicata* in Streptozotocin-Nicotinamide Induced Type 2 Diabetic Rats. *Journal of Ethnopharmacology* 133 : 480-483.
- Koivikko, R., J. Loonen., T. Honkanen., & V. Jormalainen. 2005. Contents Of Soluble, Cell-Wall-Bound and Exuded Phlorotannins In The Brown Algae *Fucus vesiculosus*, With Implications On Their Ecological Functions. *Journal of Chemical Ecology*. 31: 195-212.
- Koivikko, R. 2008. Brown Algal Phlorotannins : Improving and Applying Chemical Method. Departement of Chemistry. University of Turku. Finland.
- Lamella, M., J. Anca, R. Villar, J. Otero, & J. M. Calleja. 1989. Hypoglycemic Activity of Several Seaweed Extracts. *Journal of Ethnopharmacology*. 27: 35-43.
- Lann, K. L., C. Ferret, E. VanMee, C. Spagnol, M. Lhullery, C. Payri, & V. Stingerpouvreau. 2012. Total Phenolic, Size-Fractioned Phenolics and Fucoxanthin Content of Tropical Sargassaceae (Fuciales, Phaeophyceae) from the South Pacific Ocean: Spatial and Specific Variability. *Journal Phycological Research*. 60: 37-50.
- Lee, C. W., & J. S. Han 2012. Hypoglycemic Effect of *Sargassum ringgoldianum* Extract. *Nutrition Food Science*. 17:8-13.
- Lei, L, M. Heinrich, S. Myers, & A. D. Symon. 2012. Towards a Better Understanding of Medicinal Uses of Brown Seaweed *Sargassum* in Traditional Chinese

Medicine: a Phytochemical and Pharmacological Review. Journal of Ethnopharmacology.

- Liao, C-H., & J. Y. Lin. 2013. Lotus (*Nelumbo nucifera Gaertn*) Plimule Polysaccharide Ameliorates Pancreatic Islets Loss And Serum Lipid Profiles In Non-Obese Diabetic Mice. Food and Chemical Toxicology. 58:416-412.
- Linkens, H. F. & F. J. Jackson. 1999. Modern Methods of Plants Analysis of Plant Waste Materials. Springer Verlag Berlin Heidenberg. Germany. 20.
- Luo, H. Y., B. Wang, C. G. Yu, Y. I. Qu, & G. I. Su. 2010. Evaluation of Antioxidant Activities of Five Selected Brown Seaweeds from China. Journal of Medicinal Plants Research. 4: 2557-2565.
- Matsuhasi, T. 1977. Acid Pretreatment of Agrophytes Provides Improvement in Agar Extractions. Journal Food Science. 42: 1396-100.
- Mokgope, L. B. 2006. Cowpea Seed and Their Extracts: Phenolic Compositon and Use as Antioxidants in Sunflowers Oil. Departement od Food Science. Faculty on Natural and Agricultural Science.University of Pretoria. South Africa.
- Moree, S. S., G. B. Kavishankarb, & J. Rajeshaa. 2013. Antidiabetic Effect of Secoisolariciresinol Diglucoside in Streptozotocin-induced Diabetic Rats. Phytomedicine. 20 : 237– 245.
- Nagai, T. & T. Yukimoto. 2003. Preparation and Functional Properties of Beverages Made from Seal Algae. Food Chemistry. 81: 1859-1865.
- Nugroho, A. E. 2006. Hewan Percobaan Diabetel Mellitus : Patologi dan Mekanisme Aksi Diabetogenik. Biodiversitas. 7: 378-382.
- Nurhayati, K. Siadi, & Harjono. 2012. Pengaruh Konsentrasi Natrium Benzoat dan Lama Penyimpanan pada Kadar Fenolat Total Pasta Tomat.Indonesian Journal of Chemical Science. 1: 378-382.
- Othmer. 1968. Seaweeds Colloids. Encyclopedia of Chemical Technology. 17:763-784.
- Pejic, R.N & D.T. Lee. 2006. Hypertriglyceridemia. Journal of the American Board of Family Medicine. 19: 310-316.
- Plaza, M., M. Amigo-Benavent, M. D. del Castilo, E. Ibanez., & M. Herrero. 2010. Facts about the Formation of New Antioxidants in Natural Samples after Subcritical Water Extraction. Food Research International. 43: 2341-2348.
- Pujar, A., A. Kumar, M. Sridhar, & S.V. Kulkarni. 2013. An Interesting Case of Hypertriglyceridaemic Pancreatitis. Journal of Clinical and Diagnostic Research. 7: 1169-1171.

- Radke, W. 2014. Polymer Separations by Liquid Interaction Chromatography: Principles-Prospects-limitations. *Journal of Chromatography*. 1335: 62-79.
- Rice-Evans, C.A, N. J. Miller, & G. Paganga.1997. Antioxidant Properties of Phenolic Compounds. *Thread Plant Science Review*. 2:152-159.
- Ridwan, A., R. T. Astrian, & A. Barlian. 2012. Pengukuran Efek Antidiabetes Polifenol (Polyphenon 60) Berdasarkan Kadar Glukosa Darah dan Histologi Pankreas Mencit (*Mus musculus* L.) S.W. Jantan yang Dikondisikan Diabetes Mellitus. *Jurnal Matematika & Sains*.
- Rohman, M. S. 2007. Patogenesis dan Terapi Sindroma Metabolik. *Jurnal Kardiologi Indonesia*. 28: 160-168.
- Sandberg, A. A, & D. H. Philip. 2008. Interactions of Exocrine and Endocrine pancreatic Diseases. *Journal Pancreas*. 9: 541-575.
- Shibata, T., S. Kawaguchi, Y. Hama, M. Inagaki, K. Yamaguchi, & T. Nakamura. 2004. Local and Chemical Distribution of Phlorotannins in Brown Algae. *Journal of Applied Phycology*. 16 : 291-296.
- Sriram, N. 2011. Antidiabetic and Antihyperlipidemic Activity of Bark of *Casuarina equisetifolia* on Streptozotocin Induced Diabetic Rats. *International Journal of Pharmacy Review & Research*. 1:4-8.
- Singleton, V. L., & J. A. Rossi. 1965. Colorimetry of Total Phenolic with Phospholibdic-Phosphotungstic Acid Reagent. *American Journal of Enology and Viticulture*. 16: 147.
- Srinivasan, K. & P. Ramarao. 2007. Animal Models in Type 2 Diabetes Research: An Overview. *Indian Journal Medicine Research*. 125: 451-472.
- Subroto, M. A. 2006. *Ramuan Herbal untuk Diabetes Mellitus*. Penebar Swadaya.
- Sudarsono, Ngatidjan, S. Wahyudono, D. Gunawan, & Sudrajat. 1985. *Tumbuhan Obat I. Pusat Studi Obat Tradisional*. Universitas Gadjah Mada. Yogyakarta.
- Sudarwanto, H., P. Napitupulu, & J. Bhakti. 2004. Ekstraksi Minyak Laka (CNSL) dari Kulit Biji Jambu Mete dengan Solvent Ethanol. Universitas Diponegoro. Semarang.
- Szkudelski, T. 2001. The Mechanism of Alloxan and Streptozotocin Action in B Cells of the Rat Pancreas. *Physiological Research*. 50 : 536-546.
- Thomas, N. V. & S. K. Kim. 2011. Potential Pharmacological Applications of Polyphenolic Derivatives from Marine Brown Algae. *Environmental Toxicology and Pharmacology*. 32 :325-335.

- Tjokroprawiro, A. 1996. Diabetes Mellitus:Klasifikasi, Diagnosis dan Terapi. Gramedia Pustaka Utama. Jakarta.
- USDA. 2014. Dr. Duke's Phytochemical and Ethnobotanical Databases (online database). <http://www.ars-grin.gov/duke/chem-activities.html>. diakses tanggal 10 Februari 2015.
- Wagh, A. D., S. K. Paknikar, & S. C. Bhattacharyya.1964. TerpenoidsLVI: Absolute Configuration of Elemol. Tetrahedron. 20: 2647–2654.
- Weiss, R. B. 1982. Streptozocin: A Review of its Pharmacology, Efficacy and Toxicity. Cancer Treatment Report.66 : 427-38.
- Wells, B.G., J.T. DiPiro, T.L. Schwinghammer, & C. V. DiPiro. 2009. Pharmacotherapy Handbook.7th Edition.The McGraw-Hill Companies. United States.
- WHO. 1985. Diabetes Mellitus. WHO Technical Report Series. Geneva.
- WHO. 1999. Definition, Diagnosis and Classification of Diabetes Mellitus and its Complications : Report of a WHO Consultation. Part 1, Diagnosis and Classification of Diabetes Mellitus.Departement.of Non Communicable Disease Surveillance.
- Winarno, F.G. 1996. Teknologi Pengolahan Rumput Laut. Jakarta. Pustaka Sinar Harapan.
- You, T.,& S. M. Barnett. 2004. Effect of Light Quality on Production of Extracellular Polysaccharides and Growth Rate of *Porphyridium cruentum*. Biochemical Engineering Journal. 19. 251-258.
- Zhu, J.,A. D. Lower-Nedza, M. Hong, S. Jie, Z. Wang, D. Yingmao, C. Tschiggerl , F. Bucar & A. H. Brantner. 2013. Chemical Composition and Antimicrobial Activity of Three Essential Oils from *Curcuma wenyujin*. Natural Products Community. 4:523-526.
- Zubia, M., D. Robledo, & Y. Freile-Pelegrin.2007. Antioxidant Activities in Tropical Marine Macroalga from Yucatan Peninsula, Mexico. Journal Application Phycology. 19: 449-458.